

REMARKS

The Office action dated March 9, 2011, and the references cited therein, have been received and carefully reviewed.

New claim 14 is supported by the specification at page 9, lines 4-9).

Claim 1 has been amended to recite the transitional phrase "consisting essentially of", which excludes materials that materially affect the basic and novel characteristics of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976).

The rejection of claims 1-3, 7, 12, and 13 under 35 U.S.C. 103(a) as being unpatentable over Akamatsu et al. (US 5,273,813) in view of Vogt et al. (US 6,824,819) is respectfully traversed, for the following reasons.

(I) First of all, it should be noted that the present invention is directed to a bag made of down proof fabric which has excellent heat retention and low air permeability. The bag may be used for sportswear, casual wear, coats and the like. These properties of Applicants' fabric are not even hinted at in the fabrics disclosed by Akamatsu et al. (hereinafter "Akamatsu") and Vogt et al. (hereinafter "Vogt").

Akamatsu discloses a fabric that is used in wind-filling sporting goods, such as paragliders, hang gliders, yacht sails,

spinnakers, and stunt kites, where impermeability to wind or air, and resistance to tearing, are critical requirements of the fabric.

Vogt discloses down proofed, metallized fabric articles. However, Vogt does not disclose the properties of the fabric before it is coated with metallic particles. Vogt does not disclose properties of a fabric which has not been metallized, and therefore does not disclose properties of the claimed invention.

Accordingly, neither Akamatsu nor Vogt address the specific problems which are overcome by the present invention.

There is no reason why a person skilled in the art would have been motivated to combine Akamatsu with Vogt, because a person of ordinary skill in the art, seeking to improve the air and wind impermeability and tearing resistance properties of the Akamatsu fabric, would not look to a reference (Vogt) that concerns the down proofing of fabrics by metallizing a surface of a fabric.

(II) It must be noted that the presently claimed bag comprises a polyester fabric having a total cover factor (CF) of not lower than 1600, according to the definition of the cover factor (CF) set forth on page 8, lines 3-9 of the specification.

The Patent Office has taken the position that Akamatsu teaches a cover factor of "about 1680", after calculating the cover factor using Applicant's formula and the data set forth in the embodiments disclosed in Examples 21 and 22 of the Akamatsu patent, which are set forth in cols. 11 and 12 thereof.

In arriving at an alleged cover factor value of "about 1680" for Akamatsu, the Patent Office has interpreted the Akamatsu disclosure as teaching that the three 20 denier yarns, which are combined to make the thick yarn, are also doubled, resulting in a 120 denier yarn. This interpretation of the Akamatsu reference is incorrect.

The thick yarn used in Examples 21 and 22 of Akamatsu is, in fact, composed of doubled three 20 denier thin yarns. Therefore, the thick yarn is not two folded yarn but double yarn. The fineness of the thick yarn of Akamatsu is thus 60 dtex.

According to these features of the Akamatsu thick yarn, the total cover factor of the fabrics of Akamatsu Examples 21 and 22 can be calculated as follows.

In Akamatsu, the warp and weft weaving structure unit and densities are disclosed in columns 11 and 12.

Segment fineness, which should be the averaged fineness of the fibers of the weaving structure, can be calculated as follows:

Segment Fineness = {[(20d x 20) + (60d x 1) + (20d x 2) +
(60d x 1)]/24} x (10000/9000) = 25.93.

The coefficient to change denier to dtex is (10000/9000).

The number of segment yarns/2.5 cm is 150, as described in line 46 of column 11 of Akamatsu.

Therefore, the total cover factor (CF) of the fabric of Examples 21 and 22 of Akamatsu, using the formula for CF set forth on page 8, lines 8-9 of the specification, is:

CF (warp and weft) = $25.93^{1/2} \times 150 = 763.8$

Total CF = 763.8 x 2 = 1528

Accordingly, Akamatsu does not disclose a cover factor value of "not lower than 1600", as required by the present claims. The Vogt reference does not fill the gaps left by Akamatsu.

There is no mention of a cover factor in Vogt, and certainly no disclosure of a total cover factor of at least 1600, as required by the claims.

Furthermore, the presently amended claim 1 should be interpreted to mean that the down proof fabric of the invention consists essentially of a polyester fabric with the specified cover factor, and the other properties recited in claim 1. Namely, fabrics comprising other ingredients in high amount, to the extent that these other ingredients adversely affect the

properties of the present invention, should be excluded from the present invention.

In this regard, it should be noted that Vogt discloses fabrics coated with metal particles and polyurethane latex, which coatings would adversely affect the properties of the presently claimed invention.

Therefore, the bag of Vogt is absolutely different from the presently claimed bag, in the essential properties of the invention.

In view of all of the above, it is submitted that the rejection under 35 U.S.C. 103(a) is unsustainable, and should be favorably reconsidered and withdrawn.

Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akamatsu in view of Vogt and in further view of Gamble (US 3,071,783), and claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akamatsu in view of Vogt and in further view of Hirakawa (US 4,582,747).

As discussed above, a combination of the Akamatsu and Vogt references does not result in the presently claimed invention, as defined by claim 1.

Gamble also does not disclose or suggest a fabric which includes A yarns having a total fineness not higher than 25 dtex, and B yarns having a total fineness not lower than 35 dtex, with

a total cover factor of "not lower than 1600", and therefore does not fill the gaps left by Akamatsu and Vogt.

Hirakawa also does not disclose or suggest a fabric which includes A yarns having a total fineness not higher than 25 dtex, and B yarns having a total fineness not lower than 35 dtex, and therefore does not fill the gaps left by Akamatsu and Vogt.

It follows that claims 6, 10, and 11 are also patentable over the art.

With regard to claim 11, in particular, it should be noted that neither Akamatsu nor Vogt disclose or suggest a polyester fabric having a thickness of 0.065 mm or less, as required by claim 11.

The examiner indicated, however, that the thickness of a dustproof fabric disclosed by Hirakawa is 0.05 mm to 0.4 mm. However, the thickness of fabrics in the examples of Hirakawa is 0.1 mm or more. That is, Hirakawa does not specifically disclose fabrics having a thickness of 0.065 mm or less, so a combination of Hirakawa with Akamatsu and Vogt would not result in the invention of claim 11. Furthermore, there is no reason why a person of ordinary skill in the art would look to Hirakawa to restrict the thickness of down proof fabric.

Any rejection under 35 U.S.C. 103(a) must consider the invention as a whole, which includes the many excellent

properties of the Applicants' invention, and not in a piece-meal fashion as the Examiner is attempting.

Indeed, Hirakawa does not even hint at a fabric obtained by using A yarns and B yarns. The fabric disclosed by Hirakawa comprises pores to impart dust-proofing, which is a completely different objective to the Akamatsu invention, as described above.

The rejections should therefore be favorably reconsidered and withdrawn.

In view of the foregoing amendments and remarks, Applicants submit that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Applicants hereby petition the Commissioner for Patents to extend the time for reply to the Final Office action dated March 9, 2011, for three (3) months from June 9, 2011, to September 9, 2011. Payment is being made by electronic funds along with the filing of this paper.

Respectfully submitted,



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